



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/593,358	06/14/2000	Willard L. Hofer	MICS.0053	8367
7590 11/28/2003				
Michael G Fisher Fletcher Yoder & Van Someren P O Box 92289 Houston, TX 77269-2289			EXAMINER NGUYEN, JIMMY	
			ART UNIT 2829	PAPER NUMBER

DATE MAILED: 11/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/593,358	HOFFER ET AL.	
	Examiner	Art Unit	
	Jimmy Nguyen	2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Argument

The remark filed 8/22/03 has been carefully considered with the following effect;

The applicant argues that the edge rollers (510) of the '857 patent does not hold the wafer at all, the examiner is disagree. The edge rollers play an important roll of supporting and rotating wafer counter clock wise during the process of cleaning, if there are no edge rollers, then the wafer does not has any support at all to hold it off. Further, the holding structure of the '542 patent is going to flip the wafer as the second axis. One with an ordinary skill in the art would have to combine those two reference to inspect and clean the wafer such as the additional references 6606154 and 505288 provide herein for the applicants for the purpose of record.

As explained in detail above, the amendments do not render the claims distinct and patentable over prior art; nor do the amendments overcome the rejection. The applicant's arguments have considered in full, but they are deemed to be unpersuasive. Therefore, this final rejection is made.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moinpour et al (US 5868857) in view of Matsukawa et al (US 5518542)

Regarding claim 1, Moinpour et al disclose (fig 5B)

A holding structure (510) having members arranged to hold and rotate (column 4, line 28 -37) the substrate (502) about a first axis, the holding structure (510) being coupled to a rotatable member (512)

However, Moinpour et al is silent on the rotatable member configured to rotate the holding structure about a second axis different from the first axis.

On the other hand, Matsukawa et al teach on the rotatable member configured to rotate the holding structure (111a, 111b) about a second axis (flipping) different from the first axis for the purpose of providing the ability for testing system to test the wafer from different angle.

It would have been obvious to one having an ordinary skill in the art at the time of the invention was made to modify the robots arm of Moinpour et al and providing the

flipping feature as taught by Matsukawa et al for the purpose of providing the ability for testing system to test the wafer from different angle

Regarding claim 2, Moinpour et al discloses (fig 5B) the members (510) comprises a plurality of wedge assemblies configured to rotate the substrate (502) about the first axis

Regarding claim 3, Moinpour et al discloses (fig 5B) the first axis is disposed generally perpendicular to a flat surface of the substrate (502) and extends generally through an axial center of the substrate.

Regarding claim 4, Matsukawa et al discloses (fig 12) the holding structure comprises tow L shaped gripping arms (111a, 111b) arranged to form a single U shape and configured to hold the substrate substantially parallel to the gripping arms

Regarding claims 5,6, Matsukawa et al discloses the U shaped structure is configured to open and close about the perimeter of the substrate (W)

Regarding claim 7, Moinpour et al discloses (fig 5B) the holding structure (510) comprises three wedge assemblies (as seen in the figure) , at least one wedge assembly coupled to a motor (512). and configured to rotate the substrate (502) about

the first axis disposed generally perpendicular to a flat surface of the substrate (502) and extending generally through an axial center of the substrate.

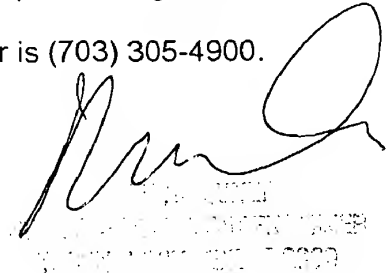
Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Nguyen at (703) 306-5858. Any inquiry of a General nature of relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4900.

JN.
Nov 4, 2003



NOV 4 2003
COMMUNICATIONS SECTION
U.S. PATENT AND TRADEMARK OFFICE